



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
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Barry R. Stephens, P.E., Director  
Division of Air Pollution Control  
Tennessee Department of  
Environment & Conservation  
9<sup>th</sup> Floor L & C Annex  
401 Church Street  
Nashville, TN 37243-1531

Dear Mr. Stephens:

This correspondence is being sent to provide you with an official final copy of the Environmental Protection Agency (EPA) Region 4 report, which was completed as a result of the EPA Title V and New Source Review (NSR) program evaluation conducted the week of December 5, 2005, in Nashville, Tennessee (see Enclosure). The purpose of this program review was to evaluate the status and the ability of the Tennessee Department of Environment and Conservation (TDEC) to carry out the duties and responsibilities required to effectively run the Title V and NSR programs, as well as find out how EPA can best assist the TDEC in meeting these commitments.

We would like to take this opportunity to commend the TDEC staff for the effective implementation of both the Title V and NSR programs. EPA Region 4 looks forward to continuing to work closely with TDEC to maintain high quality Title V and NSR programs.

If you or your staff have any questions regarding the report, please do not hesitate to contact Randy Terry of the EPA Region 4 staff at (404) 562-9032.

Sincerely,

G. Alan Farmer  
Acting Director  
Air, Pesticides and Toxics  
Management Division

Enclosure



## **Tennessee Department of Environment & Conservation Division of Air Pollution Control (TDEC-DAPC) Title V and New Source Review Program Review**

The U.S. Environmental Protection Agency (EPA) Region 4 committed to conduct detailed title V and New Source Review (NSR) program reviews for all state and local programs that have at least ten title V major sources within their jurisdiction. These evaluations also include a review of the title V fees collected and billed annually. This commitment results from an agreement between the EPA Office of Air and Radiation and the EPA Office of Inspector General, which required EPA to conduct title V program evaluations of all state and local programs. EPA Region 4 decided, in addition to title V, to use this opportunity, when applicable, to evaluate the NSR programs at each of the state and local programs. The program reviews are to be completed by the end of Fiscal Year 2006. The TDEC-DAPC program review was conducted during the week of December 5, 2005, in Nashville, Tennessee. Prior to arrival, EPA emailed a list of 11 title V sources to TDEC-DAPC that EPA planned to review as part of the overall program review. Upon EPA's arrival at TDEC-DAPC, EPA spent the first day reviewing the title V files and discussing the title V questionnaire with TDEC-DAPC staff. The following day was allocated to completing the review of the permit files and conducting the NSR questionnaire. The following parties attended the title V questionnaire discussion: Randy Terry (EPA Region 4), Brandi Jenkins (EPA Region 4), Daphne Wilson (EPA Region 4) and Lacey Hardin (TDEC-DAPC).

# **Tennessee Title V Program Review**

## **1. Program Review**

TDEC-DAPC's organizational structure for air permitting resides at the office in Nashville, Tennessee. All title V permits for the TDEC-DAPC area are processed in the Nashville office. TDEC-DAPC's title V permitting jurisdiction covers all of Tennessee not covered under a local title V program. Separate program evaluation reports will be written covering the Nashville-Davidson County, Chattanooga-Hamilton County, Knox County and Memphis-Shelby County title V programs.

The headings in the title V portion of this report duplicate the headings in the title V program review questionnaire administered during the visit.

EPA appreciates TDEC-DAPC's efforts to aid the evaluation process by providing an answered copy of the program review questionnaire prior to the meeting. For many questionnaire items, the answers provided by TDEC-DAPC are more detailed than indicated in the summary discussion below. The answered questionnaire from TDEC-DAPC will be on file at EPA Region 4 for reference.

### **A. Title V Permit Preparation and Content**

TDEC-DAPC has processed 100 percent of their initial title V applications. The majority of the applications submitted by the sources during the initial round of title V permit issuance contained discrepancies between the previous files and the applications and required TDEC-DAPC to seek additional information to create the permit. Since the vast majority of the initial applications did require TDEC-DAPC to request additional information, TDEC-DAPC held multiple workshops to train the title V companies and consultants on the proper information needed within the application.

In instances where a significant amount of time has passed between application submittal and drafting a permit, TDEC-DAPC requires the source to update their application and submit a new compliance certification. To ensure that a source is in compliance prior to permit issuance, TDEC-DAPC requires the responsible official to certify compliance as part of the application. TDEC-DAPC also consults with its field inspectors and reviews all enforcement records for a source prior to issuing a title V permit. In cases where that facility is out of compliance, TDEC-DAPC includes specific milestones and dates within the permit for returning to compliance.

TDEC-DAPC has provided additional training for their staff in an effort to improve the quality of permit writing. Additionally, they share information through a shared network drive and issue internal guidance memos when critical decisions are made. In order to ensure a quality product, all permits undergo at least one level of supervisory review prior to public notification.

TDEC-DAPC has made specific efforts to streamline their permit issuance by using EPA guidance when available (i.e. secondary aluminum maximum achievable control technology (MACT) tables). In addition, TDEC-DAPC references test methods rather than including them within the permits.

TDEC-DAPC prepares a statement of basis (SOB) for each title V permit processed, incorporating the requirements of 40 CFR part 70.7(a)(5). However, the SOB does not always include all of the necessary information. TDEC-DAPC needs to ensure that their SOB contains the appropriate rationale for the monitoring conditions as well as the applicability and any exemptions. EPA offered to conduct training for the TDEC-DAPC staff on the necessary content of SOBs.

TDEC-DAPC noted that they are affected in their ability to issue timely title V permits by several external issues which include, but are not limited to, awaiting EPA approval of proposed State Implementation Plan (SIP) revisions, and compliance and enforcement issues.

In discussing the overall strengths and weakness of the format of title V permits, TDEC-DAPC believes a strength of the format is the requirement to contain all applicable regulations within the permit. This allows the reviewer to quickly determine which regulations apply. TDEC-DAPC believes a weakness includes the length of the permits of some of the larger sources and the inadequacy, in some cases, of detailing all necessary regulation content.

## **B. General Permits**

TDEC-DAPC does not issue general permits.

## **C. Monitoring**

In order to ensure that its operating permits contain adequate monitoring, TDEC-DAPC's Compliance Validation program has developed standard compliance methods for certain source/control equipment types. They review any compliance methods that are not standard. TDEC-DAPC has developed internal guidance, for their permit writers, regarding how monitoring is selected for permits. Additionally, TDEC-DAPC's permit writers attend and participate in training on monitoring to ensure that they are aware of the latest monitoring developments. TDEC-DAPC routinely adds monitoring for major sources, where not specifically required, in cases of chronic non-compliance or for sources for which frequent citizens complaints are received. TDEC-DAPC incorporates compliance assurance monitoring (CAM) into its permits.

## **D. Public Participation and Affected State Review**

TDEC-DAPC utilizes a newspaper of general circulation, which is the newspaper in the area where the source is to operate, with the largest circulation, to give general public notice of title V permitting actions. The cost of publishing public notices in the newspaper has averaged \$700 and is paid for by the source. On occasions when significant community involvement is anticipated, TDEC-DAPC has published the public notice in more than one newspaper. TDEC-

DAPC also utilizes their website as an additional method of public notification. All title V public notices, draft permits and SOBs are published on the website and remain on the website for six months. Citizens are able to provide comments via the "ask TDEC-DAPC" email address found on the website. In addition, in specific instances, TDEC-DAPC has incorporated a mailing list into their methods of public notification. TDEC-DAPC provides copies of the public notice, draft permit, and SOBs to everyone included on the mailing list. In cases where the conditions within the permit are being relaxed, the permit must be renoticed. In order to help the public determine when the 60 day citizen petition clock expires, TDEC-DAPC has agreed to include language within all title V public notices referring the public to EPA Region 4's website.

TDEC-DAPC has reached out to communities beyond the traditional public notification process when they were aware of high public interest and believe that the newspaper and their website are the most effective avenues of public notification. TDEC-DAPC has made revisions to their public participation process based upon comments received from the public. Specifically, the public requested an improved website. Additionally, TDEC-DAPC has the permit writer and typically a supervisor attend the public hearings as technical experts. The Bureau of Environment provides staff to respond to media inquiries and to maintain notifications on the TDEC-DAPC website. TDEC-DAPC does not public notice in any language other than English.

Upon request, copies of any additional information relative to the permit action are provided at a charge of 10 cents per page, with no charge for the first 10 pages. Requests for information during the public comment period do not incur a charge. Persons requesting to see additional information relative to a permitting action such as the application, deviation reports, compliance certifications, etc. during the public comment period must place a request for the appropriate files. Requested files will generally be made available within three to five business days, depending on the amount of material requested and the number of requests received. Persons wishing to see only the application and the draft permit may do so at the public depository (library or Field Office).

When requested, TDEC-DAPC has agreed to extend the comment period deadline. Over the years, TDEC-DAPC has noticed an increase in the percent of permits that receive public comments. The trend has been that Tennessee Valley Authority (TVA) facilities and paper mills receive the majority of the comments. TDEC-DAPC noted that several communities, but no environmental justice (EJ) communities, actively comment on permits. On the occasions that TDEC-DAPC and the source have failed to reach an agreement, the source will generally provide comments as an official part of the record.

TDEC-DAPC notifies all affected states and tribes of every public notice by email. TDEC-DAPC has never received comments from an affected state or tribe, nor have they ever provided comments to a state or tribe as an affected state.

#### **E. Permit Issuance/ Revision/ Renewal**

TDEC-DAPC has issued 100 percent of their initial title V permits. TDEC-DAPC has generally been able to process title V revisions within the time frames allotted by part 70. On several

occasions, TDEC-DAPC has taken longer than the part 70 timeframes for revisions because agency priority was given to issuing the remaining initial title V permits. To eliminate this occurrence, TDEC-DAPC management has begun to stress the importance of the part 70 timeframes. Additional efforts by TDEC-DAPC to streamline the processing of title V revisions include grouping multiple revisions together in a single notice and rolling them into the title V permit. TDEC-DAPC uses a standard database to help management track the permit revisions as they move through the system.

TDEC-DAPC is beginning to issue title V renewal permits and has developed a plan to track the permits as they move through the process to ensure that they are processed within the part 70 timeframe. To expedite the receipt of renewal applications, TDEC-DAPC allows the sources to submit a shortened application form on renewals provided the short form references the previous application. TDEC-DAPC has found the renewal process to be easier than the issuance of the "original" permits with the exception of those permits that now include CAM or maximum achievable control technology (MACT).

The length of time taken by TDEC-DAPC to issue the original permits has resulted in some renewal permits taking longer than the part 70 allocated timeframe of 18 months. In certain instances, some renewal applications were received by TDEC-DAPC prior to the issuance of the initial permit. TDEC-DAPC policy, which is to place a higher priority on enforcement issues and construction permits over operating permits, has contributed to this delay. To expedite the issuance of the renewal permits, TDEC-DAPC has received permission to fill permit writer vacancies. The additional staff should allow TDEC-DAPC to issue the majority of their permit renewals on time.

EPA also discussed TDEC-DAPC's use of 502(b)(10) revisions. EPA has received notices that are being submitted as 502(b)(10) changes that do not meet the criteria for a 502(b)(10) change. EPA and TDEC-DAPC staff discussed further identifying these changes that do and do not qualify as 502(b)(10)s.

## **F. Compliance**

TDEC-DAPC requires any deviations that are considered a threat to public health and safety to be reported by telephone, followed by a written report. TDEC-DAPC defines deviations as "any departure or situation in which an emissions source fails to meet a permit term or condition." Deviations are not necessarily considered as violations. Twenty-four hours is the maximum time length of a deviation. A separate deviation report must be issued for each 24-hour period that a deviation exists. Each deviation report must contain the probable cause of the deviation, corrective actions taken, and the magnitude and duration of the deviation. Following the receipt of a deviation report, TDEC-DAPC reviews the report and evaluates a course of action on a case-by-case basis. TDEC-DAPC reviews 100 percent of all deviation reports, semi-annual monitoring reports, and annual compliance certifications. Upon receipt of a semi-annual monitoring report or an annual compliance certification, TDEC-DAPC staff reviews the report and determines if enforcement action for the identified deviations should be pursued.

## **G. Resources and Internal Management Support**

TDEC-DAPC establishes its title V fee based on emissions volume. Currently TDEC-DAPC title V fees are \$19.50/ton based on allowable emissions or \$30.00/ton based on actual emissions with a \$3500 minimum. For 2005-2006, TDEC-DAPC has proposed a title V fee of \$23.50/ton of allowable emissions or \$34.00/ton of actual emissions, with a \$4500 minimum. TDEC-DAPC estimates their title V budget for 2005-2006 to be 7.3 million dollars. Title V revenues are processed and tracked within the TDEC-DAPC database. This system allows for financial reports for management oversight and accurately accounts for title V revenues as well as expenditures.

TDEC-DAPC has authorization to employ 43 Environmental Protection Specialists (EPS) and one Chief Permit Writer position. At the time of the evaluation, TDEC-DAPC employed 34 permit writers for a vacancy rate of 21 percent, but had received permission to advertise the nine vacancies beginning in January 2006. TDEC-DAPC's accounting procedures allow for the individual tracking of both title V and non-title V activities by the completion of a daily time database. TDEC-DAPC permit writers spend about 45 percent of their time working on title V permits. Other activities include enforcement, regulatory development, program management, construction permits, emissions inventory and training.

Since the introduction of a benefits package for permit writers in 2000, TDEC-DAPC has noticed a decline in turnover. TDEC-DAPC's permit writers enter the State system as EPS 1 or EPS 3. The permit writer's career ladder ranges up to EPS 5. EPS 6 are Program managers and the EPS 7 position is the Chief Permit Writer and Assistant Director of the Division. TDEC-DAPC has lost four experienced permit writers to retirement in the last 18 months, and expects to lose another in the near future. Additionally, they have lost another writer to another Division within TDEC-DAPC. TDEC-DAPC also has five permit writers with over 25 years experience and full State retirement is 30 years, so additional turnover is projected.

All permit writers, are afforded opportunities for EPA and State training. Training courses include online courses, telecourses, internal classroom courses, and internal training provided by an experienced permit writer. The training provided includes: how to develop periodic and sufficiency monitoring in permits, enforceable permit terms and conditions as a practical matter and writing a SOB. TDEC-DAPC has requested that EPA continue to provide Air Pollution Training Institute courses and make them available more frequently and in more locations.

TDEC-DAPC has developed an EJ strategic plan. TDEC-DAPC committed to hire a full-time position dedicated to EJ initiatives for the Department in January 2006. Permitting activities are to be addressed including public notice and improving opportunities for public involvement in permit actions. Once the EJ coordinator is hired, they will provide EJ training for all staff permit writers.



## **H. Title V Benefits**

TDEC-DAPC believes that they have gained significant benefits as a result of the title V program. TDEC-DAPC believes that since they began to implement the title V program, the title V staff has gained a better understanding of the stationary source requirements in the State Implementation Plan and a better understanding of how to write enforceable permit terms. Other benefits of the title V program and the title V fee revenues include a better stationary source emission inventory and a stable funding source despite fluctuations in other state programs. Additionally, TDEC-DAPC believes one of the major benefits of the title V program is the “one stop” document for all requirements. Having all source requirements in a single document makes it very user friendly for the facility and the inspection officer.

### **Program Highlights**

1. TDEC-DAPC has issued 100 percent of their initial title V permits, and has begun the permit renewal process.
2. TDEC-DAPC’s commitment to maintain a quality staff with minimum turnover is evidenced by their experienced staff and the creation of a permit writer benefits package to assist in retaining staff.
3. TDEC-DAPC demonstrated a commitment to involve everyone in the permitting process by holding a large number of title V workshops to clarify the title V process for title V sources, consultants, and interested citizens.
4. TDEC-DAPC’s title V revenues are contained in an account exclusively for title V, which allows the title V expenses to be easily tracked.

### **Suggested Improvements**

1. TDEC-DAPC needs to continue to remove the “Prima Facie” language from their initial title V permits as they come up from renewal. Tennessee has indicated that this is their practice.
2. EPA understands that TDEC-DAPC believes that inclusion of additional information on rationale for the monitoring methods, and inclusion of the regulatory citation with each permit condition is a duplication of effort. However, the SOB is designed to be a stand alone document separate from the permit and thus some information will be contained within both the title V permit and the SOB. TDEC-DAPC needs to ensure that their SOBs contain the appropriate rationale for the monitoring conditions as well as the applicability and any exemptions.
3. TDEC-DAPC should train their staff on understanding and identifying any potential EJ communities that may be affected by permitting decisions.

- TDEC-DAPC is in the process of Hiring an Environmental Justice Coordinator. This position should be filled by the end of September 2006. This individual will be responsible for the Departments title VI plan.
4. TDEC-DAPC needs to notify EPA of the specific date of publication for public notices. This can be done via email once the actual date of publication is determined. Since the program evaluation, TDEC-DAPC has begun to provide this notification to EPA.

## **2. Permit Reviews**

EPA Region 4 staff conducted an administrative file review of 11 title V permits. The files selected spanned a cross-section of industries in Tennessee. The permit staff and administrative staff maintaining the files were helpful and very knowledgeable of file location and content. Two of the permits selected were identified by TDEC-DAPC staff as having objectionable language identified in the administrative order responding to the title V petitions to object for TVA Kingston and John Sevier. The permits reviewed did not contain the objectionable language but did contain language regarding automatic exemption from notice of violation of opacity exceedances. There should be more discussion regarding the current implementation of this language and whether it conflicts with EPA's policy against "no action assurance."

The remaining files were reviewed for their administrative content. There was some difficulty locating or identifying specific file history such as SOB's, permit comments and draft, proposed, and final permits. EPA recommends that TDEC-DAPC consider reorganizing the content of the permit files. EPA suggests that TDEC-DAPC develop a written procedure for the title V files detailing the content and location of specific materials within the permit file to create uniformity within the files and enhance the ease of use for interested parties. One area of concern is that there is not a specific public permit file for each title V facility. It is important to maintain a public permit file that includes the SOB, public comments, EPA comments, response to comments, draft, proposed, and final permits, and any other supporting information. Having the necessary information readily available for the public is helpful in addressing questions or concerns that are often included in a petition to the Administrator. Moreover, when responding to a petition to the Administrator, EPA relies on the public permit file to find information that addresses comments identified in the petition.

Additionally, EPA recommends that TDEC-DAPC implement a file check-out tracking system. Such a system will help keep track of the permit engineer currently reviewing the file and will help minimize the possible loss of information in the file over time. It would also be helpful to maintain the files in chronological order to help quickly identify the information that is needed by the permit engineers or the public. Overall, EPA believes that TDEC-DAPC writes quality permits and improving their filing system will only enhance their product.

## **Suggested Improvements**

1. TDEC-DAPC should develop written procedures for the title V files detailing the content and location of specific materials within the permit file. Such procedures would create uniformity within the files and enhance the ease of use for interested parties. Since the program evaluation TDEC-DAPC has begun an evaluation of title V material filing procedures.
2. TDEC-DAPC should create a public permit file for each title V facility. The current filing system does not retain, in one location, all the relevant documents that reflect why certain permitting conditions are made. Since the program evaluation, TDEC-DAPC has begun an evaluation of title V material filing procedures, including an analysis of filing of the public depository materials.
3. During the evaluation it was noted that TDEC-DAPC should implement a file check-out tracking system to allow TDEC-DAPC to keep track of the permit engineer currently reviewing the file and would help minimize the possible loss of information contained within the files. TDEC-DAPC reported that there is a file check-out system in place that was not always being followed. Since the evaluation, TDEC-DAPC has taken measures to ensure that the proper procedures are followed. In addition, the files were originally designed for materials to be in chronological order, but over time the materials had been moved within the files. TDEC-DAPC is taking steps to correct this.

## **Tennessee New Source Review (NSR) Program Review**

On December 8, 2005, EPA's Region 4 conducted a review of the TDEC-DAPC NSR permit program. The NSR program review consisted of administering a questionnaire developed for EPA's national NSR program review project. Since Region 4 has reviewed virtually all of TDEC-DAPC's major NSR permits in recent years, no major NSR permits were evaluated as part of the on-site review.

The primary EPA staff person conducting the review was Jim Little from Region 4's Air Permits Section. TDEC-DAPC's primary participants were Lacey Hardin, Randy Thompson, Athel Murphy, and Haidar Al Rawi.

TDEC-DAPC has a SIP-approved NSR program with its own NSR rules. TDEC-DAPC therefore has authority to issue both major and minor NSR permits. Because there are ozone and particulate matter (PM<sub>2.5</sub>) nonattainment areas in Tennessee, the applicable major NSR permitting regulations are the regulations for prevention of significant deterioration (PSD) and the regulations for nonattainment areas. However, as discussed below, TDEC-DAPC has not had to process any major nonattainment NSR permits in many years.

TDEC-DAPC's organizational structure for air permitting consists of the central office staff in Nashville. All major and minor NSR permits are processed in the Nashville office. TDEC-DAPC's NSR permitting jurisdiction covers all of Tennessee except for Davidson County (Nashville), Hamilton County (Chattanooga), Knox County (Knoxville), and Shelby County (Memphis) which have their own SIP-approved permitting programs.

In February 2006, TDEC-DAPC adopted NSR rule revisions pursuant to EPA's December 2002 NSR rule revisions. Since the NSR program review took place prior to 2006, it covered only TDEC-DAPC's administration of NSR rules in effect prior to the February 2006 adoption of NSR rule revisions. Future discussions between TDEC-DAPC and EPA Region 4 should prove beneficial as both agencies gain experience with the NSR rule revisions that have taken effect in Tennessee.

As an appreciated aid to EPA, TDEC-DAPC provided a copy of the program review questionnaire annotated with TDEC-DAPC's answers. For many questionnaire items, the answers provided by TDEC-DAPC are more detailed than indicated in the summary discussion below. The annotated questionnaire from TDEC-DAPC will be on file at EPA Region 4 for reference if needed.

The headings in the following report duplicate the headings in the NSR program review questionnaire administered during the visit.

## **Overview of New Source Review (NSR) Permitting Program**

### **A. NSR Permits**

All permit applications and other permit-related documents are logged into a database. This allows tracking of the permit process and data retrievals such as extraction of PSD avoidance projects.

In calendar year 2004, NSR permit issuance consisted of three PSD permits, no major nonattainment NSR permits, and 305 minor permits. From the time that a permit application is deemed complete (TDEC-DAPC issues a formal completeness letter), the average period for permit issuance (based on 2004 results) is 122 days for PSD permits and 59 days for minor NSR permits.

### **B. Staff and Training**

TDEC-DAPC permitting staff members are not assigned to a specific type of permit such as NSR permits. Rather, staff members are assigned to specific facilities and have responsibility for all types of permits (NSR, title V, etc.) for those assigned facilities. The number of personnel with NSR responsibilities at the time of the on-site program review visit included 44 permit writers and 2 modelers. Other personnel whose duties relate to the NSR program include enforcement personnel, field inspectors, and administrative assistants.

NSR staff training consists largely of on-the-job training. TDEC-DAPC is interested in any future training opportunities provided by EPA.

### **C. NSR Implementation**

TDEC-DAPC follows EPA's NSR program guidance and policy as direction for implementing NSR procedures in Tennessee.

### **D. Public Participation**

All construction permit applications are public noticed. Draft permits are made available in the public depository only for major NSR. Draft minor NSR permits are provided to the public upon request.

Public notices on draft NSR permits are published in a newspaper of general circulation. The public comment period can be extended upon request, but this has not frequently happened. For major NSR projects, TDEC-DAPC holds a public hearing if even just one person requests a hearing. For minor NSR, TDEC-DAPC may hold a "town meeting" if it believes this would be beneficial and would help allay citizen concerns. For major NSR permitting, relevant documents are made available for public review at either a public library or a TDEC-DAPC field office. In addition, TDEC-DAPC has an online site for major NSR notices and draft permits and for minor NSR notices.

Public notices for PSD permits do not state quantitatively the amount of PSD increment consumed (although quantitative data are provided in the preliminary determinations that accompany the public notices). Instead, TDEC-DAPC makes a qualitative statement about increment consumption in the public notice. This approach is probably consistent with federal regulations in 40 CFR 51.166(q) where the public notice requirement calls for a statement of "the degree of increment consumption." EPA Region 4 recommends that TDEC-DAPC give consideration to including a quantitative statement of increment consumption in future public notices.

## **E. Program Benefits**

TDEC-DAPC believes that the NSR program provides an incentive for sources to reduce emissions below major source levels and helps sustain good air quality.

### **Major NSR Permitting**

#### **A. Applicability**

When deciding if two or more separated facilities should be considered one source for NSR permitting purposes, TDEC-DAPC takes into account the separation distance between facilities. If facilities are highly interdependent, they might be considered one source at a greater separation distance than if they are less interdependent.

The following two comments relate to fugitive emissions. (a) Consistent with current TDEC-DAPC NSR rules, fugitive emissions are counted toward major NSR applicability only for emission sources that are in one of 28 listed source categories. TDEC-DAPC generally is cautious in allowing emissions to be considered fugitive rather than non-fugitive. For example, emissions of volatile organic compounds typically are viewed as non-fugitive emissions. (b) EPA pointed out that the NSR rule revisions for modifications of existing sources contain a provision on fugitive emissions that differs from past practice. When making calculations of baseline emissions and projected actual emissions for NSR applicability purposes, fugitive emissions are to be included regardless of source category. [Note: This may be changed by future federal rulemaking.]

As a creditable emissions decrease for netting purposes, TDEC-DAPC does not allow use of reductions achieved through compliance with maximum achievable control technology (MACT) requirements. EPA policy allows use of such decreases for netting. TDEC-DAPC may give further consideration to its current treatment of MACT emissions reductions.

TDEC-DAPC indicated that consideration is being given to creation of an electronic filing system. Such a system would improve the efficiency of file research for purposes such as

assessing when a source owner previously has used emissions decreases for NSR netting purposes.

### **B. Prevention of Significant Deterioration (PSD) Permitting**

The TDEC-DAPC representatives present during the NSR program review interview were knowledgeable of PSD permitting requirements. EPA Region 4 expects that TDEC-DAPC will continue handling PSD permitting actions successfully. In addition, Region 4 is available to assist TDEC-DAPC as needed with future PSD permit applications and future PSD applicability questions.

The relatively few number of PSD permitting projects each year in Tennessee may not provide sufficient on-the-job experience for TDEC-DAPC staff to remain current in all aspects of PSD regulatory requirements. (For example, only three PSD permits were issued in 2004.) A training update provided by EPA would be beneficial.

TDEC-DAPC representatives indicated that TDEC-DAPC does not commonly use reference sources other than the RACT/BACT/LAER Clearinghouse when making best available control technology (BACT) determinations. EPA Region 4 can assist TDEC-DAPC in identifying other relevant reference sources for specific projects when needed.

[Note: Also see comments under "PSD Modeling" below.]

### **C. Nonattainment Major NSR Permitting**

TDEC-DAPC provided the following comment in its annotated questionnaire related to major nonattainment NSR: "[TDEC-DAPC] has not had any nonattainment areas in several years, and our key permit writer for NSR has retired. Therefore, the current permit writers have very little, if any, experience or historical knowledge about [nonattainment NSR]. In some cases, the answers provided [in the questionnaire] are hypothetical."

Several counties in Tennessee within TDEC-DAPC's NSR jurisdiction are designated nonattainment areas for either the 8-hour ozone national ambient air quality standard (NAAQS) or the PM<sub>2.5</sub> NAAQS. Major nonattainment NSR permitting requirements are applicable in these areas. However, TDEC-DAPC has not yet had to process any major nonattainment NSR permits in these areas and therefore could not respond to the nonattainment portion of the NSR program review questionnaire based on actual experience. Responses were necessarily in terms of how TDEC-DAPC would expect to carry out nonattainment NSR permitting responsibilities. EPA's Region 4 office is available to assist TDEC-DAPC with major nonattainment NSR permits as needed.

## **NSR Avoidance**

### **A. RMRR Exemption**

TDEC-DAPC is aware of the procedures required for a routine maintenance, repair, and replacement (RMRR) exemption assessment and has made one formal RMRR assessment in the last five years (the PCA Counce assessment).

### **B. PCP Exemption**

[Note: Because the pollution control project (PCP) exemption rules and policies have been vacated by the U.S. Court of Appeals for the District of Columbia Circuit as of June 24, 2005, no questions about PCP exemptions were asked.]

### **C. Circumvention/Aggregation**

As a rough rule of thumb, TDEC-DAPC uses a separation time of 18 months to help judge whether sequential projects should be aggregated for NSR applicability purposes. This is not a fixed policy.

### **D. Synthetic Minor Permit Limits**

Synthetic minor permits contain enforceable limitations to keep emissions below the NSR significance thresholds. The term "synthetic minor" is marked on the permit and a narrative describing the project as a synthetic minor is provided in supporting documentation.

TDEC-DAPC does not usually require or perform modeling in conjunction with issuing synthetic minor permits. Circumstances that might warrant modeling include site location in close proximity to a PSD Class I area and site location in an area with high prior PSD increment consumption.

### **E. Relaxation**

A proposed increase in production or operating hours is the most common action prompting the need to assess whether a relaxation might be occurring.

## **Minor Source Construction Permitting Program**

TDEC-DAPC's rules require a minor source BACT evaluation for minor source construction permits involving projects in nonattainment areas. Minor source BACT is required for the nonattainment pollutant and precursor pollutants. A minor source BACT assessment is not as



stringent as a BACT assessment for major attainment NSR (PSD) projects. For example, a top-down assessment approach is not required for minor source BACT.

Minor source control technology requirements in attainment areas include use of best equipment and technology for gaseous emissions from non-process emissions units (for example, combustion units) and reasonable and proper control for gaseous emissions from process emissions units.

## **Modeling**

### **A. PSD Modeling**

Recent changes to EPA's Guideline on Air Quality Models will necessitate greater use of the AERMOD model. TDEC-DAPC's modeling staff will need to become adept in use of the model.

For cumulative impact modeling, TDEC-DAPC provides an inventory of sources for modeling purposes. Included with the inventory is an identification of sources in the general site area that do not have to be included in modeling. TDEC-DAPC also provides background concentrations that are added to modeling results for assessment of compliance with ambient air quality standards.

Modeling for compliance with national ambient air quality standards is based on allowable emissions. PSD increment compliance modeling is based on actual emissions for the past two years except that allowable emissions are used if actual emissions data are not available.

TDEC-DAPC re-runs modeling analyses to verify modeling results provided by permit applicants.

Several areas with elevated terrain exist in Tennessee. TDEC-DAPC provides a handout on complex terrain modeling to permit applicants.

At the time of the program review, TDEC-DAPC was working on development of a modeling guideline that would provide various types of modeling recommendations in one document.

Modeling is typically performed using off-site (National Weather Service) meteorological data. At one location, TVA has on-site meteorological data which have been used for modeling.

The past procedural agreement with PSD Class I area federal land managers (FLMs) has expired. (North Carolina, the other party to this agreement, did not display any interest in extending the agreement.) TDEC-DAPC continues to coordinate closely with FLMs on specific projects. TDEC-DAPC specifies to applicants how Class I area impacts are to be assessed rather than having applicants propose an assessment approach.

Unlike most states, Tennessee has state ambient air quality standards (SAAQS) that are applicable in addition to national ambient air quality standards. Specifically, SAAQS exist for total suspended particulate matter (TSP) and hydrogen fluoride (HF). So long as these SAAQS remain in effect, compliance with the standards must be demonstrated as part of PSD permitting for projects that involve particulate matter and/or HF emissions.

### **B. Nonattainment Major NSR Modeling**

For the types of nonattainment areas under TDEC-DAPC's jurisdiction (ozone and PM<sub>2.5</sub>), only the PM<sub>2.5</sub> nonattainment areas would be subject to modeling considerations (to ensure that emission offsets would provide a net air quality benefit). TDEC-DAPC has not yet had to process a major NSR permit for a PM<sub>2.5</sub> nonattainment area.

### **C. Minor Source Modeling**

TDEC-DAPC typically does not require or perform minor source modeling. Modeling might be performed under some circumstances such as when complaints have been registered for the geographic area of interest. Minor sources are not modeled for PSD increment tracking.

### **D. Increment Tracking**

Baseline dates are county-specific. As previously stated, PSD increment modeling is performed using either actual emissions or allowable emissions if actual emissions data are not available. Sources excluded from modeling are not necessarily readily apparent from the public record for a specific PSD permitting action, but the public can request a list of excluded sources if interested.

### **NSR Suggested Improvements**

The following NSR-related recommendations and suggestions are a restatement of previous comments:

1. Region 4 recommends that TDEC-DAPC give consideration to including a quantitative statement of increment consumption in future public notices. TDEC-DAPC has indicated they will consider including such statements in future NSR public notices.
2. TDEC-DAPC does not allow use of reductions achieved through compliance with MACT requirements as a creditable emissions decrease for netting purposes. EPA policy allows use of such decreases for netting. Region 4 recommends that TDEC-DAPC give further consideration to its current treatment of MACT emissions reductions for netting purposes. TDEC-DAPC has indicated they will consider this option.
3. The relatively few number of major NSR permitting projects each year in Tennessee may not provide sufficient on-the-job experience for TDEC-DAPC staff to remain current in all aspects of NSR regulatory requirements. TDEC-DAPC has requested for Region 4 to provide a training workshop in early 2007, to include training on recently adopted NSR

rule revisions. EPA will follow-up with TDEC-DAPC on training.

4. Recent changes to EPA's Guideline on Air Quality Models will necessitate greater use of the AERMOD model. TDEC-DAPC's modeling staff will need to become adept in use of the model. TDEC-DAPC will continue to send staff to model training.
5. So long as state ambient air quality standards for total suspended particulate matter and for hydrogen fluoride remain in effect, compliance with the standards must be demonstrated as part of PSD permitting for projects that involve particulate matter and hydrogen fluoride emissions. TDEC-DAPC has indicated they will continue to do this.

## **Conclusion**

At the conclusion of the onsite portion of the Title V and NSR program reviews, Region 4 personnel met with TDEC-DAPC officials to conduct an exit interview. During this exit interview Region 4 shared the findings of the review and laid out the next steps for completion of the final report. Personnel in attendance from EPA Region 4 were Randy Terry, Jim Little, Brandi Jenkins, and Daphne Wilson. Gregg Worley and Kay Prince of EPA Region 4 participated in the exit interview via telephone. TDEC-DAPC officials in attendance included Paul Sloan, Tracy Carter, Barry Stephens, Quincy Styke, Lacey Hardin, Randy Thompson, Eric Flowers, John Trimmer, and Carol Williams.

Overall, EPA believes that TDEC-DAPC is operating both the title V and NSR programs at a high level of proficiency and looks forward to working with the TDEC-DAPC in the future.

